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Research Report

Spruce Mountain Wind Project Intercepts

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Summary

The Maine Department of Environmental Protection (DEP) asked Spruce Mountain Wind, LLC to conduct a survey regarding the perceived impacts of the development of the Spruce Mountain Wind Project on Spruce Mountain in Woodstock, Maine with users of the state-owned Little Concord Pond parcel in Woodstock, Maine. Maine DEP requested that the survey be conducted on the overlook on Bald Mountain over Memorial Day weekend. Spruce Mountain Wind, LLC engaged Market Decisions to finalize and conduct the survey, and evaluate the results.

- Bald Mountain is a recreational attraction because it is accessible, a short hike, and has nice views. Hikers here are not expecting a wilderness experience, rather, a chance to get exercise and enjoy the outdoors, often as a family.
- On average, respondents rated the current scenic value of a photograph of the view from Bald Mountain as 4.5 on a 7-point scale, slightly above the mid-point or neutral (4) level of the scale. No respondent gave the photographic image the highest rating of 7.
- The addition of a wind farm to the view dropped the average rating to 3.6, slightly below the midpoint or neutral level of the scale. No respondent gave the image with the wind farm the lowest rating of 1.
- Most respondents thought that the addition of a wind farm to the view from Bald Mountain would have no effect on their enjoyment. Expectations for negative and positive effects were nearly balanced; four thought that the wind farm would negatively affect enjoyment and three thought it would positively affect enjoyment. No respondents said that the effect on their enjoyment would be extremely negative (1 on a 7-point scale) or extremely positive (7 on a 7-point scale).
- Most respondents supported wind power in Maine; four completely supported it (7 on a 7-point scale). Only two were neutral on the issue and none were negative.

Methodology

The survey used in this research was developed collaboratively with the client, Spruce Mountain Wind, LLC, and with the DEP's consultant, James F. Palmer. The survey was designed to be administered in person, on the top of Bald Mountain so it was purposefully short - just 17 questions including demographic information. In addition, the interviewer noted the number of boats visible on Shagg Pond at hourly intervals throughout each day.

For the most important set of questions, respondents were asked to rate the scenic value of the view to the northwest, of Spruce Mountain and Shagg Pond, and then to rate a photograph of a view of just Spruce Mountain and finally the same view of Spruce Mountain with simulated images of a wind project. The images presented were each approximately 9" by 13.5", copies of which are contained in the final section of this report.

The survey was administered on Saturday, May 29 and Sunday, May 30 of Memorial Day Weekend 2010. The weather was clear and sunny both days, ideal for hiking. A trained interviewer was on the top of the mountain both days from 9 am to 6 pm. The first adult respondent that appeared from each group was intercepted and invited to participate. Children were not interviewed.

In all, 15 interviews were completed among the 28 adult hikers that stopped at the mountain ledges. Two additional interviews were completed among hikers that turned out to be less than eighteen years of age. Since this survey was to be conducted among adults, these interviews were not included in the analysis.

With such a high "response rate", 15 of 28, we can say that the collected data is representative of the hikers on the mountain during the survey period. We cannot say whether the data would be the same for other days. Additional data would be necessary to make more definitive conclusions.

Visitor Traffic to Bald Mountain

A total of fifty-one hikers visited the mountain over the two days. However, one large party of twenty-one hikers on Sunday (consisting mostly of children) skewed these results.

	Stopped at Ledges		Continued On Trail		Boats on Pond
	Adults	Children	Adults	Children	
Saturday	8	4	2	0	2
Sunday	20	19	4	4	3
Total	28	23	6	4	5

Visitor Residence

Five respondents were from out of state and none were from the local communities of Woodstock or Locke Mills.

Q1: Note number in party

Q2: First, can you tell me the zip code of the place you live?

Respondent ID	Number in party	Zip Code	Town or City
1	3	14450	Fairpoint, NY
2	2	04106	South Portland, ME
3		04106	South Portland, ME
4	2	04220	Buckfield, ME
5	7	04530	Bath, ME
6		04263	Leeds, ME
7		04530	Bath, ME
8	2	04106	South Portland, ME
9	5	04253	Livermore, ME
10	2	04353	Whitefield, ME
11	6	15207	Pittsburgh, PA
12	2	04103	Portland, ME
13	21	01913	Amesbury, MA
15		01913	Amesbury, MA
17		03824	Durham, NH

Previous Visits to Bald Mountain

Seven of fifteen respondents had been to Bald Mountain before. All respondents said that they hike regularly.

Q3: Have you hiked the trail to Bald Mountain before?

IF YES: About how many times in the past year?

Q4: About how many days a year do you hike?

Respondent ID	Here Before?	# Times Before	Hiking Days per Year
1	Yes	1	11
2	No		20
3	Yes	1	20
4	Yes	0*	15
5	No		12
6	No		30
7	Yes	0*	6
8	No		4
9	Yes	0*	5
10	No		15
11	Yes	2	20
12	Yes	0*	15
13	No		4
15	No		6
17	No		5

*These hikers had been to Bald Mountain before, but not in the past year.

Reasons for Hiking Bald Mountain

The Bald Mountain hike is apparently well known and three respondents noted that they came here because it is in a guide book for hikers. Respondents also mentioned that it is not too far away, not too long of a hike and has nice views, particularly of the pond. Three respondents had camps or were looking at purchasing a camp on Shagg Pond.

Q5: What brought you to Bald Mountain today?

PROBE: Any other reasons?

Q5a: And which of those reasons would you say is your primary reason?

Respondent ID	What Brought you to Bald Mountain?	Primary Reason
1	Came up for Memorial Day weekend, and to open our cottage on Shagg Pond - we hike the trail every time we come up	
2	The guide book, and we're getting ready for our Yellowstone hike at the end of summer (Fattened up over summer [sic]; shedding pounds)	Getting in shape; we like the hike
3	Recommended trail in Appalachian Mountain Guide	
4	Wanting to go on a hike, and we especially like this one. You can see the lakes; it's got a lot going for it.	Exercise
5	I'd ridden my bike here last week and noticed the rather pristine lake, and the rock face – these guys [other people in party] had been here to do a water test on the pond down there to the left.	
6	I've hiked as far as Little Concord Pond... and so we just decided this time we'd continue up here. The kids are one year older. Wanted to get all the way up here to see the view; the vista. Beautiful day, weather, spontaneity, not having gone here - Little Concord & back.	Spontaneity
7	Something fun to do on Memorial Day Weekend to get outside. My sister and I came to the pond and we wanted my husband to see it. She used to work testing water quality, algae & all that. We discovered it, and wanted him to see it. Recreation; to get the kids away from video games.	Recreation
8	Just the one we chose; not too far; hadn't been here	Hadn't been here
9	We have a camp on Shagg Pond. Love the view - wanted to bring a friend to see and have the experience of hiking it.	We have a camp on Shagg Pond
10	Headed in this direction for another reason and it was in a hiking book. Go hiking; see some place new.	Go hiking; see some place new
11	Vacation, maintaining a family property, opening camp	Opening camp

Respondent ID	What Brought you to Bald Mountain?	Primary Reason
12	The hike, and to look at a camp for sale on Shagg Pond	The hike
13	Staying locally for the weekend; my sister-in-law grew up here and knew of this place. We always do a hike when here; my sister-in-law picks where we go. Bald Mountain was nearby.	
15	Advice from someone who knew it was a nice hike; a do-able hike for the kids	A do-able hike for the kids
17	Family hike / the views	Family

Rating Scenic Values

This set of questions was intended to establish reference points for the ratings of scenic value. By asking for the best and the worst places of scenic value, it was thought that the responses of the survey participants could be better understood and that survey participants would be better prepared to rate the scenic value of Bald Mountain having considered their own scenic value reference points in advance.

Participants had little difficulty choosing a view that represented the highest scenic value; however, they had more difficulty choosing one that represented the lowest scenic value. Five respondents did not answer and among the others there did not appear to be a consistent concept for what constituted a low scenic value. For some it was another view from a mountain top, perhaps just not as impressive. For others views of people and homes reduced scenic value. Due to the different interpretations of what constituted low scenic value, it was not clear whether this question added value to the research.

Q6: Now I'd like to ask you about scenic value. Can you think of a destination in Maine that has a very high scenic value, or outstanding view? On a scale of 1-7 for scenic views, one you would rate as a 7 for highest scenic value.

Q7: Can you think of an outdoor destination in Maine that has a very low scenic value? On a scale of 1-7 for scenic views, one you would rate as a 1?

PROMPT: Please think only of outdoor, viewing or scenic areas

Respondent ID	Scenic Value Rated "7"	Scenic Value Rated "1"
1	Speckled Mountain	Don't Know
2	Cadillac Mountain	Bradbury Mountain
3	Camden/Rockport/Acadia; coastal views; mountains on coast	York - Agamenticus (overgrown view)
4	Beach next to Popham that Bates owns - you park a mile away and walk in through marsh - not all full of (smell of) sunscreen	Livermore Falls Mills
5	Mt. Bigelow	Old Orchard Beach, I-295
6	Blue Hill Mountain	(Little mountain in Lewiston by Bates College) - in the city; kind of a bummer
7	Bald Mountain in Weld - there are so many! Mt. Abraham.	Old Orchard Beach
8	Katahdin	Don't Know
9	Right here	Don't Know
10	Cadillac Mountain	JoMary Road (near the 100-mile wilderness)
11	Right here	Don't Know

Respondent ID	Scenic Value Rated "7"	Scenic Value Rated "1"
12	Katahdin	Don't Know
13	Acadia National Park	A place where the trees have been strip-mined (what's the word I'm looking for...) clear cutting
15	Table Rock	Androscoggin River
17	Sunday River; looking toward Mt. Washington	Don't Know

Rating Scenic Views from Bald Mountain

One respondent gave the actual view from Bald Mountain the highest rating, a 7. Two others rated the view a 6. All respondents but one rated the actual view at or above the midpoint of the scale (4) with the average as a 4.9.

Differences in ratings of actual view and the photograph of the same view were slight. Three of fifteen rated the view from the photograph lower than the actual view, ten rated both views the same, and, oddly enough, two rated the view in the photograph higher than the actual view.

Ten respondents rated the scenic value of the photographic image with the wind farm lower than the image without the wind farm. Three did not change their ratings and two respondents rated the view with the wind farm higher. Changes in ratings were small with the greatest change a two-point rating reduction. On average, ratings decreased slightly less than one point (0.9).

No dramatic pattern of differences in responses was apparent. Ratings of men declined by 1.1 points on average, slightly more than ratings by women which declined by .6. Two of three respondents with interest in camps on Shagg Pond (one of these was planning to buy a camp on Shagg Pond) reduced their rating of scenic value by two points and one reduced it by one point. Those from out of state changed ratings similarly to those from within the state; two reduced ratings by two points, two by one point and one did not change. Of the four who most strongly supported wind power, one increased the rating by half a point, one changed by one point, one changed by two points, and one did not change.

Q8: Now take a look to the southwest slightly to the right of Shagg Pond towards Spruce Mountain. On the 1-to-7 scale of scenic value in Maine, where 7 is the highest scenic value and 1 is the lowest, how would you rate the scenic value of this view?

INT: ASK RESPONDENT TO TURN AWAY FROM ACTUAL VIEW BEFORE SHOWING PHOTOS

Please take a look at this photograph taken looking towards Spruce Mountain. HAND IMAGE TO RESPONDENT

Q9: On a scale of 1-7, where 7 is the highest scenic value and 1 is the lowest, how would you rate the scenic value of this view?

Please take a look at this photo simulation of a wind power project that has been proposed on Spruce Mountain. HAND IMAGE TO RESPONDENT

Q10: On a scale of 1-7, where 7 is the highest scenic value and 1 is the lowest, how would you rate the scenic value of this view?

Resp. ID	Gender	Camp on Shagg Pond	Residence	Support for Wind Power in Maine 1-7, 7 Completely Support, 1 Do Not Support at All	Scenic Value Actual View 1-7, 7 Highest, 1 Lowest	Scenic Value Photo of View 1-7, 7 Highest, 1 Lowest	Scenic Value Photo of View With Wind Farm 1-7, 7 Highest, 1 Lowest	Change in Scenic Value
1	Male	Camp on Shagg	Fairpoint, NY	6	3	3	2	-1
2	Male		South Portland, ME	5	5	5	3	-2
3	Female		South Portland, ME	6	4	4	4	0
4	Female		Buckfield, ME	7	7	3	3.5	+5
5	Male		Bath, ME	7	5	3	3	0
6	Female		Leeds, ME	4	6	6	5	-1
7	Female		Bath, ME	7	4	4	5	+1
8	Female		South Portland, ME	6	4	5	4	-1
9	Female	Camp on Shagg	Livermore, ME	5	5	6	4	-2
10	Male		Whitefield, ME	4	4	4	3	-1
11	Male		Pittsburgh, PA	6	6	6	5	-1
12	Male	Buying Camp on Shagg	Portland, ME	5	5	4	2	-2
13	Female		Amesbury, MA	6	5	5	5	0
15	Male		Amesbury, MA	5	5	5	3	-2
17	Female		Durham, NH	7	5	5	3	-2
Average				5.7	4.9	4.5	3.6	-0.9

Effect of Wind Power Project on Enjoyment of Bald Mountain

Four respondents said that the wind power project would negatively affect their enjoyment of Bald Mountain and three said that the project would positively affect their enjoyment. Seven gave a neutral response (a four), and one refused to answer. Overall, the average was slightly below neutral, a 3.9. None of the responses were to the extreme: no respondents said the project would have a very positive effect (a 7) or a very negative effect (a 1).

Q11: Now I'd like you to think about how your enjoyment of coming here today would be affected by a change in the current view of Spruce Mountain to the one in the image. On a scale of 1-7, where 7 is a very positive affect and 1 is a very negative affect on your enjoyment how would your enjoyment be affected? A "4" means that it would not change your enjoyment at all.

Q12: Why do you say that?

Q13: Please think about how a change from the current view of Spruce Mountain to the one in the image would affect your likelihood of returning to Bald Mountain. On a scale of 1-7 where 7 means you are more likely to return and 1 means you are less likely to return, how likely are you to return to Bald Mountain, given the change in the view? A "4" means the change in the view would have no effect on your return.

Resp. ID	Effect on Enjoyment 1-7, 7 Positive, 1 Negative	Comments	Likeli- hood to Return, 1-7, 7 Very Likely, 1 Not at all Likely
1	5	I like the idea; it's clean energy. We've got to move in that direction. I guess it's not so bad; it's not a power plant.	4
2	2	I'd have to say I'd select one that didn't have the mills first. I was thinking more of auditory – I've not been up close but I've heard people say there is a distinct hum or distraction from the natural sounds.	4
3	4	It wouldn't bother me a bit, it wouldn't change: that's one small piece of the whole view. The giant log cabin probably built by someone out-of state who only stays there a few days a year probably offends me more.	4
4	REFUSED	(If there are houses nearby, that would bother me...) If that wind was powering Woodstock and not just going to the grid – if people in Woodstock were less dependent on Maine Power, that's a good thing; 7. If it was going into the grid and lining someone else's pockets, that would be a zero.	REFUSED
5	5	Just because I like wind power and I'd rather harness the wind than spill oil in the gulf.	5

Resp. ID	Effect on Enjoyment 1-7, 7 Positive, 1 Negative	Comments	Likelihood to Return, 1-7, 7 Very Likely, 1 Not at all Likely
6	3	Because it does detract from the pristine quality of the view, but... I would still hike up here.	4
7	4	I don't think it'd really – I don't think I'd spend much time looking at it either way – I'd say "There's the wind farm" and enjoy it either way. And again, novelty, to see progress.	7
8	3	Takes away a little bit, so I'd give it a little lower.	4
9	4	(Unless the hum bothers) – I come for exercise, and to pick berries in July – I don't find the picture that offensive, as long as it doesn't blow us off the mountain. Be interesting to see if there's an echo. Fighter jets fly here; you can be down there in a boat and feel the jets before you hear – scare the heck out of you.	4
10	4	I guess I'm already looking at some radio towers – the windmills would be doing a good thing; it's not too different from looking at radio towers, or looking out at Sugarloaf or something like that, a mountain half stripped of trees.	4
11	4	There's nothing aesthetically that offends me about this.	4
12	3	It'd be somewhat adversely affected – now we're looking at a relatively unspoiled view of nature – here we have a very pronounced view of man-made structures. You're reminded you're not really escaping civilization.	2
13	4	It was the hike; it was nature; that doesn't affect it at all.	4
15	4	It's still a good hike for kids and a good view, even with the windmills.	4
17	6	I'd feel good about Maine or whoever's doing the project. It'd actually enhance/improve my experience.	4
Average	3.9		4.1

Support for Wind Power

Q14: Using a scale of 1-7 where 7 is completely support and 1 is do not support at all, how much do you support commercial-scale wind energy development in Maine?

Respondent ID	Support for Wind Power in Maine 1-7, 7 Completely Support, 1 Do Not Support at All
1	6
2	5
3	6
4	7
5	7
6	4
7	7
8	6
9	5
10	4
11	6
12	5
13	6
15	5
17	7
Average	5.7

Demographic Information

Hikers to Bald Mountain represented a mix of ages from 18-24 to 64+, with the largest group of respondents, 5, aged 35-44 and a mix of gender with 7 men and 8 women. The hikers were more educated than the general population. All of the respondents had at least some college with 7 respondents with a bachelor's degree and one with a bachelors and a graduate degree.

Finally, we would like to ask a few questions so that we can develop a demographic profile of the visitors to this area.

Q15: Please stop me when I say your age group

Q16: Please stop me when I say the highest level of education you completed

Q17: GENDER (BY OBSERVATION)

Respondent ID	Age	Education	Gender
1	18-24	Completed some college	Male
2	35-44	Completed a Bachelor's Degree	Male
3	35-44	Completed an Associate's Degree	Female
4	65+	Completed a Bachelor's Degree	Female
5	35-44	Completed a Bachelor's Degree	Male
6	35-44	Completed some college	Female
7	35-44	Completed a Bachelor's Degree	Female
8	45-54	Completed some college	Female
9	45-54	Completed some college	Female
10	25-34	Completed some college	Male

Respondent ID	Age	Education	Gender
11	45-54	Completed a Bachelor's Degree	Male
12	35-44	Completed a Bachelor's Degree	Male
13	35-44	Completed a Graduate or Professional Degree	Female
15	45-54	Completed some college	Male
17	55-64	Completed a Bachelor's Degree	Female

Survey Instrument

1634



ID# _____

Survey Questions

GREET HIKERS TO MOUNTAIN Hello, I am conducting a short survey about impressions of visitors to Bald Mountain. Do you have a few minutes?

1. INTERVIEWER NOTE NUMBER IN PARTY: _____

2. First can you tell me the zip code of the place you live? _____

3. Have you hiked the trail to Bald Mountain before? (CIRCLE RESPONSE)

1	Yes (ASK: About how many times in the past year?)	# times
2	No	
8	DK	
9	REF	

4. About how many days a year do you hike? _____

5. What brought you to Bald Mountain today?

PROBE Any other reasons?



5a. And which of those reasons would you say is your primary reason? (INT: circle primary reason)

6. Now I'd like to ask you about scenic value. Can you think of a destination in Maine that has a very high scenic value, or outstanding view? On a scale of 1-7 for scenic views, one you would rate as a 7 for highest scenic value.

7. Can you think of an outdoor destination in Maine that has a very low scenic value? On a scale of 1-7 for scenic views, one you would rate as a 1?

PROMPT: Please think only of outdoor, viewing or scenic areas

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8. Now take a look to the southwest slightly to the right of Shagg Pond towards Spruce Mountain. On the 1-to-7 scale of scenic value in Maine, where 7 is the highest scenic value and 1 is the lowest, how would you rate the scenic value of this view? (CIRCLE NUMBER)

1	2	3	4	5	6	7	DK	REF
---	---	---	---	---	---	---	----	-----

INT: ASK RESPONDENT TO TURN AWAY FROM ACTUAL VIEW BEFORE SHOWING PHOTOS

Please take a look at this photograph taken looking towards Spruce Mountain. HAND IMAGE TO RESPONDENT

9. On a scale of 1-7, where 7 is the highest scenic value and 1 is the lowest, how would you rate the scenic value of this view? (CIRCLE NUMBER)

1	2	3	4	5	6	7	DK	REF
---	---	---	---	---	---	---	----	-----

Please take a look at this photo simulation of a wind power project that has been proposed on Spruce Mountain. HAND IMAGE TO RESPONDENT

10. On a scale of 1-7, where 7 is the highest scenic value and 1 is the lowest, how would you rate the scenic value of this view? (CIRCLE NUMBER)

1	2	3	4	5	6	7	DK	REF
---	---	---	---	---	---	---	----	-----

11. Now I'd like you to think about how your enjoyment of coming here today would be affected by a change in the current view of Spruce Mountain to the one in the image. On a scale of 1-7, where 7 is a very positive affect and 1 is a very negative affect on your enjoyment how would your enjoyment be affected? A "4" means that it would not change your enjoyment at all. (CIRCLE NUMBER)

1	2	3	4	5	6	7	DK	REF
---	---	---	---	---	---	---	----	-----

12. Why do you say that?

13. Please think about how a change from the current view of Spruce Mountain to the one in the image would affect your likelihood of returning to Bald Mountain. On a scale of 1-7 where 7 means you are more likely to return and 1 means you are less likely to return, how likely are you to return to Bald Mountain, given the change in the view? A "4" means the change in the view would have no effect on your return.

1	2	3	4	5	6	7	DK	REF
---	---	---	---	---	---	---	----	-----

14. Using a scale of 1-7 where 7 is completely support and 1 is do not support at all, how much do you support commercial-scale wind energy development in Maine?

1	2	3	4	5	6	7	DK	REF
---	---	---	---	---	---	---	----	-----

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Finally, we would like to ask a few questions so that we can develop a demographic profile of the visitors to this area.

15. Please stop me when I say your age group (Circle Response)

1	18-24
2	25-34
3	35-44
4	45-54

5	55-64
6	65 and older
8	DK/REF

16. Please stop me when I say the highest level of education you completed, CIRCLE RESPONSE

1	Have not completed high school
2	Completed high school or GED
3	Completed some college
4	Completed an Associate's Degree

5	Completed a Bachelor's Degree
6	Completed a Graduate or Professional Degree
8	DK/REF

17. GENDER (BY OBSERVATION)

☐ 1 Male

☐ 2 Female

Thank you for your help.

Date: _____ **Time:** _____

Spruce Mountain Images

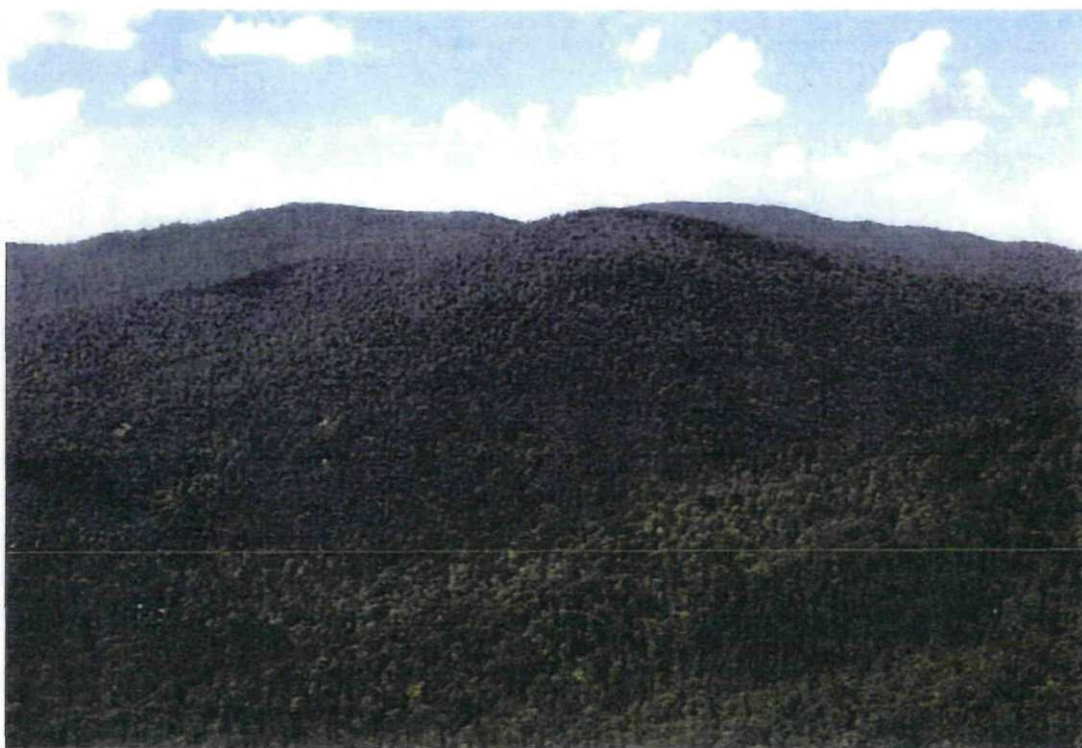


Figure A. Spruce Mountain Existing View

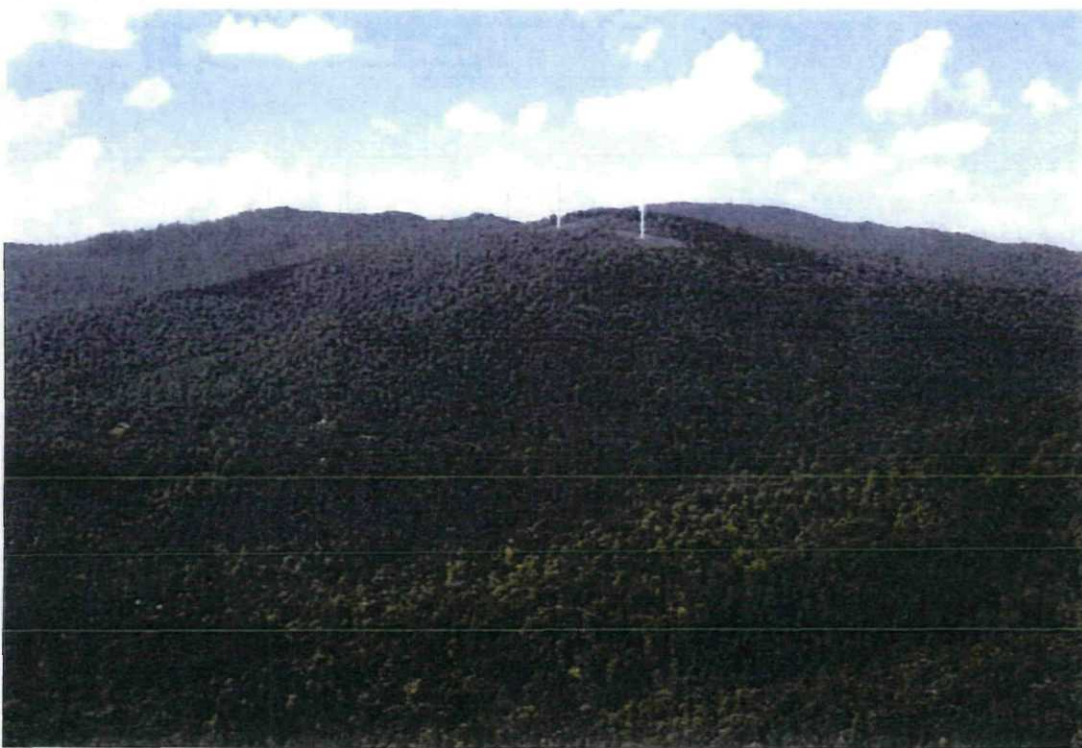


Figure B. Spruce Mountain Simulated View